



STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF
STATE PLANNING COORDINATION

June 17, 2005

Tom Ford LandDesign, Inc. Oak Square, Suite 3, Central Avenue Ocean View, DE 19970

RE: PLUS review – PLUS 2005-05-16; Water's Run

Dear Mr. Ford,

Thank you for meeting with State agency planners on May 25, 2005 to discuss the proposed plans for the Water's Run project to be located on 27.34 acres on SCR 381 at Dirickson Creek in Sussex County.

According to the information received, you are seeking to rezone the property from AR-1 to AR-1 Cluster for the construction of a residential subdivision in the Level 4 area, within the Environmentally Sensitive Developing Area of Sussex County.

These comments reflect only issues that are the responsibility of the agencies represented at the PLUS review meeting. Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. The developers must comply with any Federal, State and local regulations regarding this property. Specifically, Sussex County is the governing authority over this land and the developers will need to comply with any and all regulations/restrictions set forth by the County.

Executive Summary

This section includes some site-specific highlights from agency comments found in this letter and is provided for your convenience and reference. The full text of this letter represents the official state response to this project. ***Our office notes that the applicants are responsible for reading and responding to this letter and all comments contained within it in their entirety.***

Project Location

- This development is proposed for an Investment Level 4 area according to the *Strategies for State Policies and Spending* and is in the Environmentally Sensitive Developing Area according to the Sussex County Comprehensive Plan. Based on the extensive data analysis used to develop the *Strategies*, the presence of Investment Level 4 in the Environmentally Sensitive Developing Area is an indication of sensitive natural resources on-site. In this case, forested areas, flood plains, and wetlands on the site influenced the designation as Investment Level 4. **The site design recognizes its objective to minimize adverse impacts with this development.**

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Street Design

Right-of-way dedication along Old Mill Bridge Road will be required. Will comply

A paved multi-modal path, located in a 15-foot wide permanent easement will be required on both sides of the road. This would be contrary to sensitive design of natural factors since non-tidal wetlands would most likely be affected on the easterly portion of this project and is an excessive requirement to pave surfaces. This is not in keeping with an environmental conscious design. We hereby propose that the state judicially review the option of a multi-modal path along the west side with possible extension to the north by way of cross walk

The cul-de-sac serving lots 26 through 39 should be changed to a stub street abutting tax parcel 5-33-12.00-21.00. This would not be considered appropriate to this small community with private streets, paths, amenities and water access to invite offsite usage thereof The perimeter of the site has provided a minimum 30' buffer between the adjacent properties to help contain and emphasis this private feature.. A community of this size wouldn't necessarily be in a position to police such and it could present liabilities that could be better deterred and controlled with one entry. A redesign to accommodate a stub street would also entail additional forest clearing and approximately 160 lin.ft. more street and impervious pavement. We purport that this would have a negative effect environmentally with no immediate offset benefits for traffic flow. In addition it is our objective to minimize impervious surfaces. The Sussex County P&Z as well as Council typically weigh these kinds of conflicting benefit issues during the public hearing process and make a determination as to what is a reasoned response to each project. We would argue in favor of keeping the roadway cul-d-sac design as shown.

Sidewalks should be provided on both sides of the street on the block entering the development-. Since the Active amenities are on the north side of the entry street with a proposed walking path we suggest that the south or exiting side of the street be improved with a sidewalk. This sidewalk will then be connected to the amenity walks by way of a cross walk.

Natural/Cultural Resources

The parcel is adjacent to the Dirickson House. The hedge shown sheltering the house from the development will help mitigate the adverse visual impact. Ms. Dirickson is the owner of this property and anticipates beneficial impacts with its development.

This parcel may contain the Williams Old Mill. If the project requires an Army Corps of Engineers permit, the developer must consult with SHPO and may be required to undertake an archaeological survey to determine the presence or absence of the mill site. The Mill site, we believe, is on adjacent property not part of this development and therefore wouldn't be affected by an archaeological survey. In the event a Corps of Engineers' permit is required, the developer will conduct archeological surveys as may be required by the Corps within the Corps' designated permit area. Coordination with the SHPO is part of the Corps' process.

Efforts should be made to preserve existing forest. As proposed, a considerable amount of forest will be removed, which might make the required nutrient load reduction for forest difficult to achieve. Removal of forest will also fragment natural habitat on the site. 57% of the existing forest is to remain.

Portions of the site are within the 100-year flood plain. Buildings should be limited to areas outside the flood plain and above the base flood elevation. No proposed lot and no building with living accommodations are within the 100 year flood plain.

This office has received the following comments from State agencies:

Office of State Planning Coordination – Contact Ann Marie Townshend 739-3090

This development is proposed for an Investment Level 4 area according to the *Strategies for State Policies and Spending* and is in the Environmentally Sensitive Developing Area according to the Sussex County Comprehensive Plan. Based on the extensive data analysis used to develop the *Strategies*, the presence of Investment Level 4 in the Environmentally Sensitive Developing Area is an indication of sensitive natural resources on-site. In this case, forested areas, flood plains, and wetlands on the site influenced the designation as Investment Level 4.

In these areas, we recommend a design that is sensitive to the natural resources on and surrounding the site. We are pleased to see that the project as proposed includes an average 100-foot riparian buffer. No homesites within the 100 year flood plains and minimum disturbance to existing forest lands. We ask also that you work with DNREC and the Department of Agriculture to address their issues regarding protection of natural resources in the development of the site.

We also note that at the meeting, you stated that through this project's connection to the Sussex County sewer, at least 22 individual on-site septic systems will be eliminated and the houses hooked to public sewer. We support the elimination of on-site septic systems whenever possible. The project will allow for extension of county sewer along CR 381. This will allow tie in for 66 additional properties between the project site south toward Route 54.

State Historic Preservation Office (SHPO) – Contact Alice Guerrant 739-5685

The parcel is immediately adjacent to the Dirickson House (S-733) and will adversely affect its setting. Ms. Dirickson is the owner of this property and anticipates beneficial impacts with its development.

The plans show a hedge sheltering the house from the view of the development, which will help mitigate this effect. The hedge shelters the rear portion of the Dirickson property from the proposed homes and creates privacy for each.

The parcel may contain the site of Williams Old Mill and is immediately adjacent to the mill pond, as shown on Beers Atlas of 1868. The development will adversely affect the setting of the millpond. We disagree with this unsubstantiated statement. If the Mill was an authenticated issue then the state missed an opportunity when the bridge was built to provide for an historic precedent in this area. There has been no state action to place an historic marker or educational display. The state has however seen fit to construct an engineered concrete bridge, metal guard rails and several no parking signs which are functional yet somewhat out of character with this scenic vista. There is no visual evidence of the Williams Old Mill and it is unwarranted to suggest that this project would have an "adverse affect" on such when the project boundaries may not even be inclusive of the original structural improvements. Contrary to the states "adverse comment" the picturesque scene that is currently present will not be adversely affected by this proposal. No habitat structure along the eastern portion of the property is proposed. This roadside strip of open land will secure the full wide angle scenic overlook of the Dirickson's Creek into the future. In addition an abundant riparian edge was preserved along the northern edge of the project, which will help maintain its natural imagery along the waters edge. The project design approach has demonstrated sensitivity to the areas visual allure. In addition the developer shall through the course of investigative planning, field observations, and during the course of construction will be on the outlook for any material finds that the state may find of interest. The developer proposes construction of a gazebo and crabbing pier in the vicinity of the mill site. This may require an

Army Corps of Engineers permit. If so, the developer will be required to consult with SHPO and may be required to undertake an archaeological survey to determine the presence or absence of the mill site. - This parcel also has a high potential for prehistoric archaeological sites.

In the event a Corps of Engineers' permit is required for pier construction, the developer will conduct archeological surveys as may be required by the Corps within the Corps' designated permit area. Coordination with the SHPO is part of the Corps' process.

Department of Transportation – Contact Bill Brockenbrough 760-2109

Mandrin Homes, Ltd. seeks to construct 56 single-family detached houses on a 27.34-acre portion of a larger parcel (Tax Parcel 5-33-12.00-20.00) on both sides of Old Mill Bridge Road (Sussex Road 381) and the south bank of Dirickson Creek. Most of the land is and all of the lots would be on the west side of the road. The land is zoned AR-1 in Sussex County and it would be developed under the AR-1 Environmental cluster option.

This development is proposed for an area designated as Level 4 under the *Strategies for State Policies and Spending*. The intent is to preserve the open space, agricultural lands, natural habitats and forestlands that are typically found in Level 4 areas while avoiding the creation of isolated development areas that cannot be served effectively or efficiently by public transportation, emergency responders, and other public services. This site is well located to emergency responders. The Roxana Fire Department is within 2 miles. The Sussex County Paramedics are within 5 miles. Sewer connection is within ½ mile. Artesian water has a water tower within ½ mile and electric, phone, gas and cable are available. Convenience store, gas station, restaurant, fitness center, liquor store, etc. are all within ½ mile of this site. Its within the Indian River School district on established bus routes readily accessible without any extensive atypical measures to provide adequate services. This project is located within the heart of the development pattern that rings the Inland Bays. In addition the state planning coordination office approved the Sussex County Land Use Plan with this area designated as an environmentally sensitive development area. It is confusing for landowners, developers, land planners and most likely the Sussex County P&Z and Council for the state to not support responsible development supported by infrastructure in areas such as this application. It's confusing for the state to cite one approved source directly in contrast to another approved source. Both sources are guides based on the best-generalized information obtainable when written. Final decisions on land-use need to be left in the hands of competent local elected officials who are intimately familiar with each individual sites' inherent opportunities and constraint.

Recognizing that the project is in an Environmentally Sensitive Developing Area, as designated by the Strategies and the Sussex County Comprehensive Plan, DelDOT is providing a technical review herein, although these comments were not provided at the PLUS meeting.

DelDOT strongly supports new development in and around existing towns and municipalities and in areas designated as growth zones in approved Comprehensive Plans. We would ask DELDOT to reexamine the viability of this project, its location and unique surrounding development patterns and to provide a letter of "No Objection" to this development proposal. We encourage the use of transfer of development rights where this growth management tool is available.

- 1) Old Mill Bridge Road is classified as a local road. Local roads in Delaware typically have

right-of-way widths ranging from 33 to 50 feet. DelDOT's policy is to require dedication of sufficient land to provide a minimum right-of-way width of 30 feet from the centerline on local roads. Therefore right-of-way dedication is required along the frontage to provide any additional width needed from this project. The existing R.O.W. is fifty foot. A dedication of 5' shall be accommodated on both sides of it to equal 60' R.O.W. total.

- 2) A paved multi-modal path, located in a 15-foot wide permanent easement is required across the frontage of the site. Preliminarily, paths should be provided on both sides of the road. We will accommodate a path primarily at the entrance to this project and then to the east side of the road north of the entrance. This will avoid any conflicts with 404 lands.
- 3) The cul-de-sac serving Lots 26 through 39 should be changed to a stub street abutting Tax Parcel 5-33-12.00-21.00. Please refer to comments under the heading Street Design above pg.1-2.
- 4) Sidewalks should be provided on both sides of the street on the block entering the development. It is noted that parallel path is proposed north of the pool and tennis court, however people who choose to walk along the street should have a safe place to do so. See previous comments above.
- 5) The project site engineer should contact Mr. John Fiori, Subdivision Manager for Sussex County, (302) 760-2260, regarding requirements for access. Will comply

The Department of Natural Resources and Environmental Control Contact Kevin Coyle 739-3091 Soils

According to the soil survey update, Pepperbox, Aquic Udorthents, Klej, and pits and gravel were mapped in the immediate vicinity of the proposed construction. Pepperbox is a moderately well soil of low-lying uplands that has moderate limitations for development. Aquic Udorthents is a somewhat poorly-drained soil (potentially hydric) that has been degraded by land clearing, filling and grading activities; development limitations are likely to be highly variable due to site-specific variations of disturbance. Klej is a transitional soil between wetlands and uplands that may or may not contain wetland associated (hydric) soils. Pits, sand, and gravel is a classification given to soils that have been excessively excavated, filled, or graded; these soils have unpredictable site specific limitations. The site has been the subject of a wetlands delineation by a professional wetland scientist. The project has been designed to substantially avoid wetland impacts and, as such, "hydric soils."

ERES Waters

This project is located adjacent to receiving waters of the Inland Bays designated as having Exceptional Recreational or Ecological Significance (ERES). ERES waters are recognized as special assets of the State. Section 11.5 of Delaware's "Surface Water Quality Standards" (as amended August 11, 1999), specifies that all designated ERES waters and receiving tributaries have a "pollution control strategy" to reduce non-point sources of nutrient runoff. Subsection 11.5(e) expressly authorizes the Department to provide standard Best Management Practices (BMPs) for controlling, reducing, or eliminating the discharge of pollutants to the greatest degree

practicable or attainable. The approach to storm water is for quality control through bio-swales with dis-charge occurring in several low volume areas and primarily utilizing existing drainage patterns.

TMDLs

Adoption of Total Maximum Daily Loads (TMDLs) as a nutrient-runoff-mitigation strategy for the Inland Bays Watershed makes reduction of nitrogen and phosphorus loading mandatory. -A TMDL is the maximum level of pollution allowed for a given pollutant below which a "water quality limited water body" can assimilate and still meet water quality standards to the extent necessary to support use goals such as swimming, fishing, drinking water and shell fish harvesting. Although TMDLs are authorized under federal code, states are charged with developing and implementing standards to support these desired use goals. The jurisdictional authority for these use goals falls under Section 11.5 of the Surface Water Quality Standards (as amended August 11, 1999), and will be achieved via nutrient reductions referred to as "pollution control strategies."

Nutrient reductions are assigned on the basis of water quality concerns. Regions of greatest environmental concern will require higher levels of nutrient reduction than those deemed less environmentally sensitive. In the subject watershed, regions are demarcated as high and low reduction zones. The high reduction zone is in the western part of the watershed and requires nitrogen and phosphorus reduction by 85 and 65 percent, respectively. The low reduction zone is in the eastern part of the watershed and requires a reduction of nitrogen and phosphorus by 40 percent.

This project is proposed within the low nutrient reduction zone and the applicant plans to remove a considerable portion of the existing forest cover. This may reduce the possibility for attaining the required TMDL loading-rate reduction for phosphorus. It is strongly recommended, and may in fact be required, (please provide requirements for such?) that the applicant consider placing greater emphasis on the retention of native forest cover. Research has shown that there is usually a large increase in sediment-bound phosphorus following extensive forest clearing activities. Is this statement concerning the release of sediment bound phosphorus into the waters of the Dirickson Creek? If so we have provided and will provide extensive means of capturing any and all sediment from being removed from the site and making advances on the waters. The riparian edge and the cluster concept is in part a large Best Management Practice (BMP) measure within themselves. In addition sediment traps and bio-swales shall remove the sediments, nitrogen and phosphorus prior to waters entering the creek. It is noted however, that the elimination of 22 or more septic systems on neighboring properties may help to off-set this impact. We agree with the states concurrence of this impact off-set. A large source of nutrients comes from wastewater. The project will have central municipal sewer that ties into the Sussex County system and therefore ocean outfalls. In addition, as the state noted, this project will be picking up additional residences. The number stands at the current time that 66 additional homesites could benefit from this projects' infrastructure. BMP's for stormwater will be employed for quality control and should allow for maximum nutrient removal attainable.

In order to verify compliance, a full nutrient accounting process known as nutrient budget should be prepared by the applicant. Lyle Jones in the Department's Watershed Assessment Section can be contacted at (302) 739-4590 for further information regarding the acceptable protocol for

calculating a nutrient budget—. The budget is undergoing significant revision at this writing and isn't in a form for reliability.

Water Supply – will comply

Should dewatering points be needed during any phase of construction, a dewatering well construction permit must be obtained from the Water Supply Section prior to construction of the well points. A water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation. All well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the wells. Dewatering well permit applications typically take approximately four weeks to process. Questions concerning these comments can be directed to Rick Rios, (302)739-3665.

Sediment and Erosion Control/Stormwater Management

- 1) A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. The plan review and approval and construction inspection will be coordinated through the Sussex Conservation District. Contact Jessica Watson, Program Manager, at (302) 856-7219 for details regarding submittal requirements and fees—. Will comply
- 2) It is strongly recommended that the applicant contact the Sussex Conservation District to schedule a pre-application meeting to discuss sediment and erosion control and stormwater management components of the plan. The site topography, soils mapping, pre and post development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion. Will comply
- 3) A Notice of Intent (NOI) for stormwater discharges associated with construction activity must be submitted to DNREC Division of Soil and Water Conservation along with the \$195 NOI fee prior to plan approval. Will comply
- 4) Applying practices to mimic pre-development hydrology, promote recharge, maximize the use of existing natural features, and limit the reliance on structural stormwater components, such as maintaining open spaces, should be considered in the overall design of the project as a stormwater management technique. Will comply
- 5) Each stormwater management facility should have an adequate outlet for release of stormwater. Any drainage conveyed onto this site from neighboring properties must be adequately conveyed through the site to the discharge point without interruption. Will comply
- 6) Clearly address how stormwater quality and quantity treatment will be provided. If the project is eligible for a Quantity Waiver, make the request in the stormwater narrative citing the specific regulation. We believe the site is available for a quantity waiver and we will comply.
- 7) Indicate on the sediment and stormwater management plan who shall be responsible for maintenance of the stormwater management facilities both during and after construction. The design of the sediment control and stormwater management plan, considerations should consider maintenance of any structures or facilities. Will comply

- 8) If a stormwater management pond is going to be utilized as a sediment trap/basin during construction it must be designed to accommodate 3,600 cubic feet of storage per acre of contributing drainage area until project stabilization is complete. Will comply
- 9) All ponds are required to be constructed per pond code 378. Will comply
- 10) If stormwater facilities will impact wetlands, a permit must be provided to the District prior to receiving approval. We believe no wetland impacts will occur with this design
- 11) Due to the proximity to sensitive areas, the Conservation District requires reinforced and super silt fence to adequately protect wetland areas during construction. Will comply
- 12) The District does not recommend clearing trees for the construction of a stormwater management pond. Quantity management is not required for this site; therefore, other green technology practices can be utilized for Quality Treatment that would allow for the forested area to remain. Please address. In the absence of detailed engineering evaluations the site plan shows worst-case scenario with the above concern. It is our intent to eliminate this pond if technically achievable.

Drainage

The Drainage Section recommends that all ditches on the property be checked for function and cleaned if needed prior to construction. Wetland permits may be required before cleaning ditches. Will comply; However, no tax ditches subject to Drainage Section jurisdiction exist on the site.

Precautions should be taken to ensure the project does not hinder any off-site drainage upstream or create problems downstream by the release of on-site storm water. Will comply

The Drainage Section strongly recommends any drainage conveyance between two parcels within the subdivision be dedicated as passive open space drainage easements and not owned by individual landowners. The easements should be of sufficient width to allow future drainage maintenance as follows. Will comply. The site plan presently indicates these areas with no lots encumbering them.

- 1) Along an open ditch or swale, a maintenance equipment zone of 25 feet measured from the top of bank on the maintenance side, and a 10-foot setback zone measured from top of bank on the non-maintenance side. These zones should be maintained as buffers to aid in the reduction of sediment and nutrients entering into the drainage conveyance. Grasses, forbs and sedges planted within these zones should be native species selected for their height, ease of maintenance, erosion control, and nutrient uptake capabilities. Trees and shrubs planted within the maintenance zone should be native species spaced to allow for drainage maintenance at maturity. Trees should not be planted within 5 feet of the top of ditch to avoid future blockages from roots.
- 2) Along stormwater pipe, a maintenance equipment zone of 15 feet on each side of the pipe as measured from the pipe centerline. This zone should be maintained as buffer to aid in the

reduction of sediment and nutrients entering into the drainage conveyance. Grasses, forbs and sedges planted within these zones should be native species selected for their height, ease of maintenance, erosion control, and nutrient uptake capabilities. Trees and shrubs planted within the maintenance zone should be spaced to allow for drainage maintenance at maturity.

The Drainage Section recommends any drainage/utility easements not have structures, decks, buildings, sheds, kennels, fences or trees within them allow for future drainage maintenance.

Floodplains

Portions of the property are within the 100-year floodplain. Buildings should be limited to areas outside the floodplain and above the base flood elevation. Filling within the floodplain must be in accordance with applicable floodplain regulations. No lot has been plotted within the FEMA mapped 100 year flood plain

Forests

According to 2002 aerial photos there is a large forested area within this parcel that is a component of a contiguous stretch of forest. Large contiguous stretches of forest like this not only provide important water and air quality benefits, but provide important habitat for many wildlife species that depend on interior forest. Clearing portions of the forest within the parcel risks the habitat value of the entire forest stretch. We have minimized the clearing and will provide for adjacent entry ways to lots so that clearing is further limited and contiguous canopy encouraged where appropriate.

A large continuous area of forest is recommended over small and disconnected areas of open space for wildlife habitat and forest preservation. Forest fragmentation separates wildlife populations, increases road mortality, and increases "edge effects" that leave many forest-dwelling species vulnerable to predation and allow infiltration of invasive species.

Forested areas set aside for conservation purposes should be placed into permanent conservation easements or other binding protection. These areas should be clearly marked and delineated so that residents understand their importance and so that homeowner activities do not infringe them.

Covenants and conditions shall make note of the areas for private preservation and shall restrict the usage thereof to passive low impact activities such as walking, birding, etc.

Open Space

To maximize existing buffering capacity and wildlife habitat, it is recommended that lot lines and other infrastructure be excluded from the forest, which should then be designated as community open space. 79% of the site is forested. It is impractical to achieve a reasonable lot yield within the remaining 21% of open area. Great care was taken to minimize the clearing aspects of this design and during the engineering phase of plan development a closer effort will be made to achieve the least disturbance possible. As a mitigating factor to this land plan we are required to stay 50' from the tidal wetland line. The proposed site plan reflects an average distance of 100'

from the tidal wetlands and waters maintained as riparian forest.

In areas set aside for passive open space, the developer is encouraged to consider establishment of additional forested areas or meadow-type grasses. These ecosystems provide increased water infiltration into groundwater, decreased run-off into surface water, air quality improvements. They also require much less maintenance than traditional turf grass, an important consideration for homeowners associations responsible for maintenance of community open spaces.

Open space containing forest and/or wetlands should be placed into a permanent conservation easement or other binding protection. These areas should be clearly marked and delineated so that residents understand their importance and homeowner activities do not infringe upon them.

Most open space areas are retained in forest.

Request for Site Visit

The Delaware Natural Heritage Program (DNHP) botanist again requests the opportunity to survey the forest and wetland resources which will be affected by this project in order to provide more informed comments and advise the applicant about opportunities to reduce impacts to potential rare species. Bill McAvoy can be reached at (302) 653-2880 to schedule a site visit. This is the second request for a site visit.

Rare/Threatened/Endangered Species

The site lies within three miles of a known Delmarva fox squirrel (*Sciurus niger cinereus*) population at the Assawoman Wildlife Area. Delmarva fox squirrels were listed as federally endangered in 1967 and are protected by the Endangered Species Act. They have also been listed as a non-essential experimental population when introduced in the eighty at the Assawoman Wildlife Preserve and they weren't to affect any adjacent property's. They generally inhabit mature forests with open understories and wet woodlands, but can be opportunistic in their habitat choice. The proposed project area contains potential habitat for Delmarva fox squirrels and the following is required prior to beginning work:

- 1) Completely avoid all direct and indirect impacts to the habitat, in consultation with the U.S. Fish and Wildlife Service (Trevor Clark, (410)573-4527) and Delaware Division of Fish and Wildlife, Nongame and Endangered Species Program (Holly Niederriter (302)653-2880); or
- 2) Conduct surveys to determine if Delmarva fox squirrels are present. In accordance with Delaware's procedures, surveys must be conducted by a State approved fox squirrel surveyor two times between September and May: once in the fall, and once between March 15 and May 30. A list of qualified surveyors is available upon request. Please note that surveys may confirm the presence of fox squirrels but cannot confirm absence. The project site lies within 3 miles of the Assawoman Wildlife Management Area (Assawoman WMA). The Delmarva fox squirrel (DFS) was released as an experimental, nonessential population at the refuge in 1984 in accordance with several notices in the Federal Register published at that time.

Although the project site is within a 3-mile radius of the Assawoman WMA, this project site lies on the south side of Dirickson Creek, opposite the Refuge. Literature indicates that the DFS does not traverse such water bodies. A review of probable migration paths for the DFS indicates in excess of a 3-mile travel path. As such, it is unlikely that the Assawoman DFS population has

migrated to this site.

Nonetheless, we anticipate that this project will require a permit from the Corps of Engineers for filling of a drainage ditch as part of road construction. Therefore, the matter of the DFS to be coordinated between the Corps of Engineers, the developer and the U.S. Fish & Wildlife Service via an informal conference. In accordance with the Endangered Species Act, the Assawoman DFS population is treated only as a proposed-to-be-listed species for Section 7 purposes because it is a nonessential experimental population located outside of a National Park or National Wildlife Refuge. We also understand that the U.S. Fish & Wildlife Service has proposed the use of a programmatic informal conference to the Philadelphia District, Corps of Engineers in order to expedite the Section 7 process when involving the Assawoman DFS population. In regard to this comment, the developer will address issues regarding the Assawoman DFS population in accordance with provisions of Section 7 of the Endangered Species Act as part of obtaining a Corps of Engineers' permit.

There are records of *Enneacanthus obesus* (banded sunfish), a state rare fish, within Dirickson Creek. This fish is restricted to heavily vegetated areas of water and uses these habitats as feeding areas and nurseries. Efforts should be made to avoid impacts to dense patches of aquatic vegetation within and adjacent to the project site in order to maintain habitat for this rare fish.

The project will not impact any area of aquatic vegetation.

Because of the presence of this species this project lies within a State Natural Heritage Site. It does not lie within a Delaware National Estuarine Research Reserve, which is one of the criteria used to determine the presence of Critical Resource Waters. The final determination regarding Critical Resource Waters will be made by the U.S. Army Corps of Engineers (ACOE). The information above will aid the ACOE in making its determination.

Recreation

Sidewalks fronting every residence and stub streets are recommended. The site plan accommodates a sufficient and effective layout for pedestrian needs. A complete system of sidewalks will: 1) fulfill the recreation need for walking and biking facilities, 2) provide opportunities for neighbors to interact in the community, and 3) facilitate safe and convenient off-road access to neighboring communities, parks, public mass transit stops, schools, stores, work, etc.

It is positively noted that pathways are planned with access to recreation amenities throughout the community. It is an intended passive amenity to provide for such. Community systems with long continuous trails, perimeter-only trails, and few access points often go unused and neglected. We believe this application does not reflect this concern. Low maintenance pervious surface such as crushed stone are recommended. For trail design/construction specifications, contact Susan Moerschel, (302) 739-9235.

Solid Waste

Each Delaware household generates approximately 3,600 pounds of solid waste per year. On average, each new house generates an additional 10,000 pounds of construction waste. Due to

Delaware's present rate of growth and the impact it will have on existing landfill capacity, the applicant is requested to estimate the amount of solid waste that will be generated as a result of construction and occupancy of this development. Will comply

Delaware State Housing Authority – Contact Jimmy Atkins 739-4263

This proposal is to develop 56 units on 27 acres located on the west side of Old Mill Bridge Road at Dirickson Creek. According to the Strategies for State Policies and Spending, the site is located in the Level 4 area and outside the growth zone. As a general planning practice, DSHA encourages residential development in areas where residents will have proximity to services, markets, and employment opportunities such as Investment Level 1 and 2 areas. The proposal is located in an area targeted for agricultural and natural resource protection, and therefore inconsistent with where the State has planned for new residential development. The area is completely surrounded by residential development. It will be serviced by public sewer and water. It is within close enough proximity to the Town of Fenwick Island and Bethany Beach that an individual can readily bike to. In fact it is noted as a superior bike route on DELDOT maps. Please take note of comments on Pg.3 of 12 under Dept.of Transportation outlining the close proximity to many services, markets, and employment opportunities. -We hereby note that the state designation of levels 1 thru 4 are based on primarily generalizations and are only a guide. The specific site characteristic of a project can only be evaluated after on site -inspections coupled with plan -review. The level 4 issues raised throughout this review are inconsistent with the factual data at the site and with the state approved Sussex County Land Use Plan.

State Fire Marshal's Office – Contact Duane Fox 856-5298

A central water system will be provided through Artesian Water Company. The service pressure will exceed 1,000 gpm for a one-hour duration at an operational pressure of 20psi as required. The applicant will meet with SFMO prior to preparing plans. Plans meeting SFMO requirements will be submitted depicting line types, sizes, and hydrant locations as well as fire lanes and signs.

At the time of formal submittal, the applicant shall provide; completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation (DSFPR):

1) Fire Protection Water Requirements:

- ① Water distribution system capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers. (Assembly)
- ¾ Where a water distribution system is proposed for single family dwellings it shall be capable of delivering at least 500 gpm for 1-hour duration, at 20-psi residual pressure. Fire hydrants with 1000 feet spacing on centers are required. (One & Two- Family Dwelling)
- ¾ Where a water distribution system is proposed for the site, the infrastructure for fire protection water shall be provided, including the size of water mains of fire hydrants and sprinkler systems.
- 2) Fire Protection Features: ① All structures over 10,000 Sq. Ft. aggregate will require automatic sprinkler protection installed.
- ¾ Buildings greater than 10,000 sq.ft., 3-stories of more or over 35 feet, or classified

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as High Hazard, are required to meet fire lane marking requirements.

- ① Show Fire Department Connection location (Must be within 300 feet of fire hydrant), and detail as shown in the DSFPR. ② Show Fire Lanes and Sign Detail as shown in DSFPR 3) Accessibility
 - ¾ All premises which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road to the subdivision from Old Mill Road must be constructed so fire department apparatus may negotiate it.
 - ¾ Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.
 - ¾ Any dead end road more than 300 feet in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.
 - ¾ The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
 - ¾ The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.
- 4) Gas Piping and System Information ① Provide type of fuel proposed, and show size and location of bulk containers on plan. 5) Required Notes
 - ¾ Provide a note on the final plans submitted for review to read "All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations"
 - ¾ Proposed Use ¾ Alpha or Numerical Labels for each building/unit for sites with multiple buildings/units ② Square footage of each structure (Total of all Floors) ③ National Fire Protection Association (NFPA) Construction Type ④ Maximum Height of Buildings (including number of stories) ⑤ Townhouse 2-hr separation wall details shall be shown on site plans ⑥ Note indicating if building is to be sprinklered ⑦ Name of Water Provider ⑧ Letter from Water Provider approving the system layout ⑨ Provide Lock Box Note (as detailed in DSFPR) if Building is to be sprinklered
 - ¾ Provide Road Names, even for County Roads

Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from www.delawarestatefiremarshal.com, technical services link, plan review, applications or brochures.

Department of Agriculture - Contact Mark Davis 739-4811

The Delaware Department of Agriculture does not support this development within the Level 4 area, but recognizes the positive aspects of centralized wastewater and water services that have been planned for it. The Department encourages the developer to work with all agencies to minimize adverse impacts to the environment and offers its services to the developer in this regard.

The applicant duly notes that the Department of Agriculture does not support this project but seeks a position of "no objection" from them. Though this ground has produced sunflowers for many years this site has little area to offer for an agricultural operation to thrive on. Its proximity to the water and wetlands makes it inappropriate for annual soil disturbance and nutrient amendments, common in agricultural practices, without stormwater management controls that will be standard improvements if developed for residential use. The surrounding residential character of the area is also indicative of the changing pattern of land-use this area is undergoing.

Right Tree for the Right Place

The Department of Agriculture encourages the developer to use the "Right Tree for the Right Place" concept in any design considerations. This concept outlines the proper placement of trees to increase property value and reduce heating and cooling costs by an average of 20 to 35 dollars per month. A landscape design that uses this approach reduces maintenance costs to property owners and ensures a lasting forest resource. Will comply

Native Landscapes

The Department of Agriculture encourages the developer to use native trees and shrubs to buffer the property from adjacent land-use activities near the site. A Large perimeter natural buffer has been accommodated within the site plan layout with a min. spacing of 30' at the tightest point. A properly designed forested buffer can create wildlife habitat corridors, clean our rivers and creeks of storm-water run-off pollutants, and improve air quality to the area by removing six to eight tons of carbon dioxide annually. We are intending on preserving the riparian edge in its natural native state. To learn more about acceptable native trees and how to avoid plants considered invasive to local landscapes, contact the Delaware Department of Agriculture Plant Industry Section at (302) 698-4500.

Tree Preservation

The Department of Agriculture encourages the developer to implement tree preservation activities to ensure the health and vigor of the resource. Will comply. Trees are affected by compaction of soils during the construction process; guidelines established by the International Society of Arboriculture (ISA) serve to lessen this impact and provide increase value to the site.

Tree Mitigation

The Forest Service encourages the developer to implement tree mitigation at a 1:1 ratio within the site to replace trees lost in construction.

Department of Education – Nick Vacirca 739-4658

It is estimated that 56 dwelling units will generate 28 additional students for the Indian River School District. Sussex County does not have school concurrence legislation at this time and it is

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LANDDESIGN, inc- 8/12/05

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recommended that the developer submit a package to the school district for informational purposes. Will comply

Strategies for State Policies and Spending recommends no development in Level 4 areas and provides little or no support where development occurs. Development approved in Level 4 areas will require student transportation support, a State financed program. This site is currently on a well traveled bus route and can easily be supported without extensive rescheduling or adjustments to bus service.

If the development is approved and built, use the following guidelines for school transportation planning. If there are homes more than 1/2 mile from the nearest public road (outside the development), the developers should provide streets wide enough for large school buses to access and turn around without backing from the furthest areas within the development. Should there be no homes more than 1/2 mile from the nearest public road, provisions for appropriate pick-up and drop-off at the development entrance should be made. The developer should work closely with the school district transportation supervisor. A bus shelter is part of this proposal at the entry to the development

Public Service Commission - Contact Andrea Maucher 739-4247

The project is within the Artesian Water Co. certificated water service territory. If the project connects to public wastewater services from Sussex County and lies outside the service territory established in October 2004, then the County must update the information it filed with the Commission. Any expansion of natural gas or installation of a closed propane system must comply with Federal Pipeline Safety guidelines. Will comply

Delaware Emergency Management Agency – Contact Don Knox 659-3362

Due to the number of residential units and location in the Level 4 and Environmentally Sensitive areas, an impact to public safety is foreseen by implementation of this project. The developer should notify the police, fire service, and emergency medical response organization serving this portion of Sussex County to keep them apprised of all development activities. Portions of this property are located in the Special Flood Hazard Area inundated by the 100 and 500-year flood, (FIRM Map 655). This area could also experience possible flooding from a category 2 or greater hurricane. Routes 20, 54, and 113 are coastal storm evacuation routes and this development will be affected by traffic volume on these routes during a coastal storm event. Will comply

Sussex County – Contact Richard Kautz 855-7878

This project is situated in an Environmentally Sensitive Development Area. The required report should include how PLUS comments have been addressed and how the plan has been revised accordingly.

The project is within the West Fenwick Planning Area as defined in the South Coastal Area Planning Study, Update 2004. Although the project is not contiguous to any County sewer districts, due to the close proximity of Dirickson Creek the Sussex County Engineering Department prefers a connection to the Sussex County wastewater system. The Sussex County Engineering Department opposes private treatment facilities within the South Coastal Area Planning Study boundary. A South Coastal Area Planning Study to extend the sanitary sewer

District to include this project and adjacent residents currently on individual systems has been submitted to the County Engineer in June of 2005. Sussex County requires design and construction of the collection and transmission system to meet Sussex County sewer standards and specifications. A sewer concept plan must be approved prior to any construction plan review. Will comply A review of the treatment and disposal system is required by the Sussex County Engineering Department- this is not applicable. The project request is for 56 units on 27.34 acres, which results in a gross density of 2.05 EDUs/acre. The County has no schedule to extend service to this project. All pipelines must be constructed in accordance with Sussex County Sewer Standards as well as the South Coastal Area Planning Study, Update 2004.

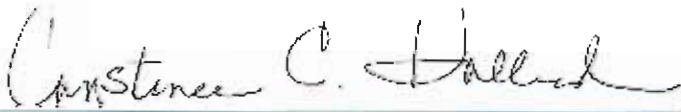
For questions regarding these comments, contact Chris Calio, Sussex County Engineering Department at (302) 855-7839.

Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Constance C. Holland, AICP Director
CC: Sussex County

Sincerely,



Water's Run

Old Mill Bridge Rd. SCR 381
Dirickson Creek, Sussex County, DE.

Sussex County Development Report- (August 12th, 2005)

(Supplemental Document to the State Planning Coordination PLUS comments of June 17th, 2005) as per Ordinance # 1152 (County Code 99-9C)

The proposed "**Water's Run**" Residential Project consist of 56 lots, with active and passive recreational amenities is an environmentally sensitive cluster application for homes along the Dirickson Creek, in Sussex County, Delaware.

- o The site is comprised of :
 - 2.82 acs. of 404 Lands
 - 0.23 acs. of State Wetlands
 - 24.29 acs. of Uplands

The project seeks to improve this land with single family homesites and both passive and active recreational opportunities. Primarily this pedestrian friendly Community will feature internal walking/biking paths. Reduced lot sizes aid in the capability of weaving the pedestrian aspects of this project through the Community and provide opportunities to leave buffer lands in more critical sensitive areas along the riparian edges of the Dirickson Creek. The site is split by Old Mill Bridge Rd. (SCR 381). The predominate land mass is situated to the west of the road. The easterly portion of land is suitable for wide angled views of the picturesque Dirickson Creek and shall remain as open space to secure that view. The location of the active amenities that include a pool, pool house and tennis courts also were oriented to take advantage of this scenic waterway. Numerous existing drainage swales are presently on the site and have been woven into the lot and roadway layout to enhance the development grading for saving forest cover. Please review the following procedures that will be designed into this project.

1. Due to the proximity of the Derickson Creek and its tidal influences we will seek a waiver to storm water quantity however will engineer and treat for storm water quality through Bio-swales, and forest buffers prior to discharge.
 - a. With appropriately placed and sized BMP's nutrient reductions will be accounted for in this "LOW REDUCTION" area of the Inland Bay.
2. **Water** - shall be available through Artesian Water, inc. and shall meet or exceed all Fire Marshal requirements for line types, sizes, and hydrant locations.
3. **Waste Water** - shall be serviced by Sussex County municipal system that will be treated and disposed of in an ocean outfall. A South Coastal Area Planning Study to extend the sanitary sewer District to include this project and adjacent residents currently on individual systems has been submitted to the County Engineer in June of 2005.
 - a. The collection system shall meet Sussex County Ordinance 38 standards

4. **Traffic** –. It is the developers' intent to abide by all stipulation of DELDOT in regards to entry improvements and potential off-site improvements and/or agreements. A traffic impact study was not required for this project due to its size.
5. **Rare, Threatened or Endangered Species** - A review by the Delaware Natural Heritage and Endangered Species database indicates that the site is within a three mile radius of the Assawoman Wildlife Area where a non-essential experimental population of Delmarva Fox-Squirrel were introduced in the eighty's. Although the project site is within a 3-mile radius of the Assawoman WMA, this project site lies on the south side of Dirickson Creek, opposite the Refuge. Literature indicates that the DFS does not traverse such water bodies. A review of probable migration paths for the DFS indicates in excess of a 3-mile travel path. As such, it is unlikely that the Assawoman DFS population has migrated to this site. Nonetheless, we anticipate that this project will require a permit from the Corps of Engineers for filling of a drainage ditch as part of road construction. Therefore, the matter of the DFS to be coordinated between the Corps of Engineers, the developer and the U.S. Fish & Wildlife Service via an informal conference. In accordance with the Endangered Species Act, the Assawoman DFS population is treated only as a proposed-to-be-listed species for Section 7 purposes because it is a nonessential experimental population located outside of a National Park or National Wildlife Refuge. We also understand that the U.S. Fish & Wildlife Service has proposed the use of a programmatic informal conference to the Philadelphia District, Corps of Engineers in order to expedite the Section 7 process when involving the Assawoman DFS population. In regard to this comment, the developer will address issues regarding the Assawoman DFS population in accordance with provisions of Section 7 of the Endangered Species Act as part of obtaining a Corps of Engineers' permit.
 - a. In addition the banded sunfish is a concern within the Dirickson Creek; yet is restricted to heavily vegetated areas of water. This project will not impact any area of aquatic vegetation.
6. **Tidal and non-Tidal Wetlands** – The site abuts state and federal wetlands. No lots have been platted in any wetland area. No lots have been platted in any fifty foot setback area. All lots have a varying buffer distance of 69' to 153' from the wetlands. The average forested buffer setback is greater than 100' from the tidal wetland edge to the rear portion of the platted lots. A generous portion of the open space has been designed into preserving the riparian edge. This wooded area shall remain intact along the northern shore of the property.
 - a. The plan calls for a crabbing pier to reach into the Dirickson Creek. This pier will satisfy the need to access the beauty of the Creek and yet will manage that access which secures the protection of all the wetland

adjacent to it. Proper permits will be applied for from the appropriate regulatory agencies prior to any construction.

7. **Open Space** - The proposed 56 Lots shown on the plan consume 10.49 acs. of land or 38.4% of the total. Right of Ways consume 3.50 acs. of land or 12.8% of the total. The remaining 48% of land is open space. The open space is broken down as follows:

- Upland areas 10.3 acs. +/-38%
- 404 Lands 2.82 acs.
- Tidal Wetlands 0.23 acs.

- a. The upland and 404 open space have been entwined throughout the Community. Some of the land shall support bio-swales, buffers, paths and park like features that provide for passive recreation and opportunity for social engagement. In addition there is a portion of the space that has been earmarked for active recreation including a pool/poolhouse and tennis court with views of the Creek as a focus. A shade shelter/ bus shelter and an elevated boardwalk access over the wetlands to a crabbing pier on the Creek for homeowners and guest use. The views of the creek and its accompanying wildlife features are a predominate design feature to be preserve.

8. **Public and Private Infrastructure -**

- a. The roads shall be built to County Standards but remain private
 - i. The entry boulevard shall have curb and gutter with sidewalks and Streetscape landscaping
 - ii. The sub-division roads will have sidewalks on one side with open swale and street tree plantings.
- b. Water shall be operated and maintained by Artesian Water Company
- c. Electric - Delaware Electric Co-operative
- d. Telephone - Verizon
- e. Cable - ComCast
- f. Gas - individual on-site lot supply; provider - TBD

9. **Historic or Cultural Resources** – There are no structures located on this site. SHPO has indicated that an adjacent property may have housed the Williams Old Mill within this vicinity. The developer shall contact SHPO should any evidence of significant artifacts be revealed in the course of the land planning, engineering, investigations, permitting, and construction of this development.

We hereby affirm that the preliminary site plan for Water's Run conforms to the provisions of the AR-1 zoning district and to the Comprehensive Plan "environmentally sensitive development district" in all regards. The plan is subject to further investigation and development however it is our professional judgment that the plan represents a realistic and feasible project readily capable of being engineered and in keeping with the provision of the Sussex County Comprehensive Plan. In addition we assert that the plan is a superior living environment that is environmentally and socially accommodating by utilization of the cluster concept. The cluster concept inherently affords opportunity to the designer to define and designate the inherent qualities, and features of the land characteristics best suited for buffers, home sites, open space, drainage basins, etc.

A few significant examples of the cluster benefits;

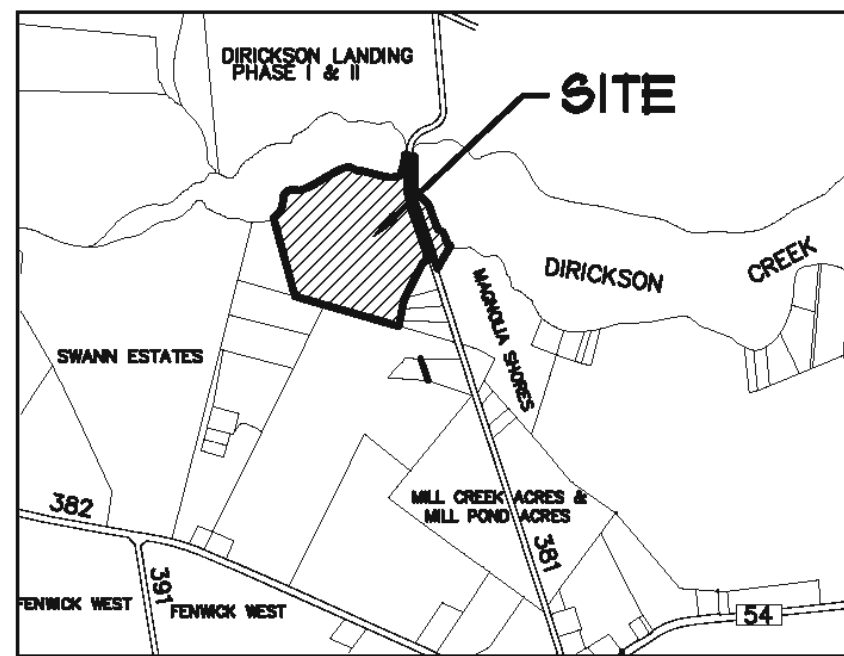
1. Efficient use of infrastructure
2. Expanded buffering of the riparian edge
3. Enhanced opportunity for open space and passive recreation
4. Off-site sewer improvements will allow up to 66 additional lots currently with individual septic disposal system to connect into sewer thus reducing nutrient loading into the Inland Bay system.

We hereby certified that the plan is in accordance with all current Federal, State, and County standards.

Should you have any questions and/or comments on the above please feel free to contact me.

Sincerely,

Thomas J. Ford III
PRESIDENT: **LAND**DESIGN, inc



VICINITY MAP
NOT TO SCALE

I. SITE DATA:

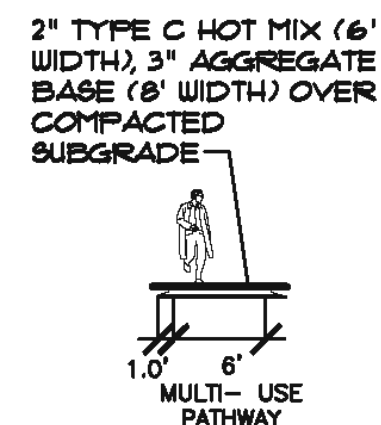
1. TAX PARCEL/ 5-33-12-20
OWNER: B & T LYNCH FAMILY PARTNERSHIP, LLC
RR 1 BOX 122
SELBYVILLE, DE 19975
- LOCATION: COUNTY ROAD 381 AT DIRICKSON CREEK
2. DEVELOPER: MANDRIN HOMES, LTD.
248 EAST DUPONT HIGHWAY
MILLSBORO, DE 19966
3. PRESENT ZONING: AR-1 (ALLOWS FOR 2.178 DU/ AC.)
PRESENT LAND USE: SINGLE FAMILY RESIDENCE
SUSSEX COUNTY COMPREHENSIVE PLAN: ENVIRONMENTALLY SENSITIVE DEVELOPING AREA
4. PROPOSED ZONING: AR-1 (CLUSTER)
PROPOSED LAND USE: SINGLE FAMILY RESIDENTIAL
5. SITE AREA: ±27.34 AC.
6. WETLANDS/ WOODED AREA/ FIELDS ALLOCATION:
- | | |
|-----------------|------------|
| 404 WETLANDS: | ±2.82 AC. |
| STATE WETLANDS: | ±0.23 AC. |
| UPLANDS: | ±24.29 AC. |
| TOTAL: | ±27.34 AC. |
| WOODED AREA: | ±21.54 AC. |

II. PROPOSED LAND PLAN DATA:

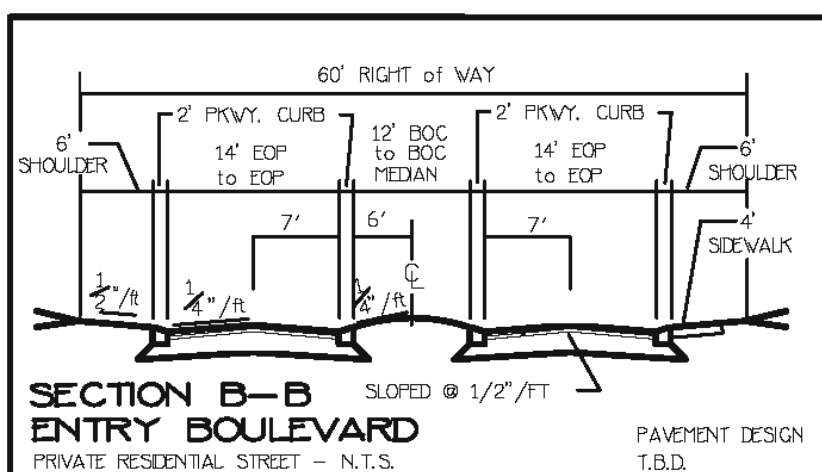
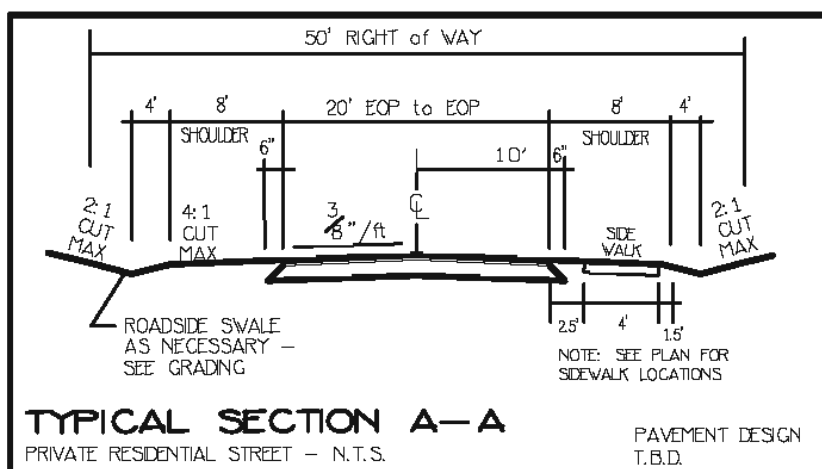
1. PROPOSED # OF UNITS: 56 S.F. LOTS
MINIMUM LOT SIZE: 7,500 S.F.
AVERAGE LOT SIZE: 8,161 S.F.
2. PROPOSED SITE AREA BREAKDOWN:
- | | | |
|----------------|--------|------------|
| RIGHT OF WAYS: | ±12.7% | ±3.48 AC. |
| LOT AREA: | ±38.1% | ±10.41 AC. |
| OPEN SPACE: | ±49.2% | ±13.45 AC. |
| TOTAL AREA: | | ±27.34 AC. |
3. GROSS DENSITY CALCULATION:
AR-1 DENSITY ALLOWED: 2.178 DU/ AC.
56 DU/ 27.34 AC = 2.05 DU/ AC.
4. PRESERVED WOODED AREA:
PRESERVED WOODED AREA: ±14.16 AC. (±51.7% OF TOTAL)
5. INFRASTRUCTURE:
SEWER: SUSSEX COUNTY SEWER
WATER: ARTESIAN WATER COMPANY
ELECTRIC: DELAWARE ELECTRIC COOPERATIVE
TELEPHONE: VERIZON
CABLE: COMCAST
GAS: INDIVIDUAL LOT ON-SITE SUPPLY
6. SETBACKS & BULK AREA CRITERIA:
- | | | | |
|--------|-----|--------------------|------------------------------------|
| FRONT: | 25' | MAX. BLDG. HEIGHT: | 42' |
| SIDE: | 10' | LOT WIDTH: | 60' MIN. |
| REAR: | 10' | LOT AREA: | 7,500 S.F. MIN.
8,139 S.F. AVG. |

NOTES:

- SITE IS IN FLOOD ZONE AE-5 AND ZONE X AS SHOWN PER FEMA MAP #100050655J DATED JANUARY 6, 2005.
- THERE ARE FEDERAL JURISDICTIONAL 404 WETLANDS ON/ ADJACENT TO SITE AS SHOWN.
- 404 WETLANDS DELINEATION BY ENVIRONMENTAL RESOURCES, INC. SEE SIMPLER SURVEYING DRAWING "TOPOGRAPHICAL SURVEY, LANDS OF B&T LYNCH FAMILY PARTNERSHIP", DATED APRIL 5, 2005 (SHEET 2 OF 2) FOR DETAILED WETLANDS INFORMATION.
- BOUNDARY, TOPOGRAPHY AND 404 WETLANDS CAPTURE INFORMATION PROVIDED BY SIMPLER SURVEYING & ASSOCIATE, FROM DRAWING DATED APRIL 5, 2005.
- STATE TIDAL WETLANDS DIGITIZED FROM STATE WETLANDS MAPS. SEE NOTE THIS SHEET REGARDING DIGITIZED WETLANDS LINE AND MEAN HIGH WATER LOCATION.
- ALL REQUIRED PERMITS WILL BE SECURED FOR ANY IMPACTS TO JURISDICTIONAL WETLANDS AS REQUIRED BY THE U.S. ARMY CORPS OF ENGINEERS.



MULTI-USE PATHWAY
NOT TO SCALE



STREETLIGHT EXAMPLE
NOT TO SCALE

LEGEND:

- PROPERTY LINE
RIGHT OF WAY LINE
LOT LINE
404 LINE
TIDAL WETLANDS LINE
FLOOD ZONE LINE
PROPOSED PERMANENT EASEMENT
- EXISTING TREELINE
50' BUFFER AREA FROM TIDAL WETLANDS
404 LANDS

LOT AREAS			
LOT	SQ. FT.	LOT	SQ. FT.
1	7583	21	8214
2	7754	22	7730
3	7874	23	8199
4	8971	24	7684
5	9021	25	7728
6	8976	26	7728
7	10466	27	7594
8	10005	28	7530
9	1349	29	8151
10	10505	30	7905
11	7804	31	7852
12	8107	32	8310
13	8156	33	8841
14	7945	34	7742
15	7886	35	7853
16	7836	36	8266
17	7941	37	8375
18	8001	38	7658
19	7585	39	7778
20	7765	40	8118

SCALE: 1"=100'

Preliminary Site Plan

REVISIONS

LAND DESIGN
SURVEYING/LANDSCAPE ARCHITECTURE INC.

Old Square Suite 3
Ocean View, DE 19870
302/531-1919
302/595-0328 FAX
landdesign@aol.com

Planning and Development
Consultants

PRELIMINARY SITE PLAN
WATERS RUN
COUNTY ROAD 381
BALTIMORE HUNDRED SUSSEX COUNTY DELAWARE

SURVEY SOURCE:
SIMPLER SURVEYING
DRAWING DATED 4/6/05

SITE PLAN: TJF
DRAWING: RWB
REVIEW: TJF

DATE
8/22/05

SHEET
1
OF 2 SHEETS